

CLAIM AMENDMENTS

Please cancel claims 6-24 without prejudice or disclaimer.

Please amend claims 4 and 5 as follows.

Please add new claims 25-38.

1. (Original) A method, comprising:

establishing first atomic layer deposition (ALD) conditions for depositing a film on a substrate;

growing at least one first monolayer of the film using the first ALD conditions, the first monolayer having first properties;

establishing subsequent ALD conditions for depositing the film; and

growing at least one subsequent monolayer of the film on the first monolayers using the subsequent ALD conditions.

2. (Previously Presented) The method of claim 1, wherein establishing the first ALD conditions comprises establishing a first ALD reactor temperature.

3. (Previously Presented) The method of claim 2, wherein establishing the subsequent ALD conditions comprises establishing at least one subsequent ALD reactor temperature different from the first ALD reactor temperature.

4. (Currently Amended) The method of claim 1, wherein establishing the first ALD conditions comprises:

establishing a first reactant flow rate for a first reactant; and

establishing a first flow rate for a second reactant.

5. (Currently Amended) The method of claim 4, wherein establishing the subsequent ALD conditions comprises establishing at least one subsequent reactant flow rate for the first reactant different from the first reactant flow rate for the first reactant.

Claims 6-24. (Canceled)

25. (New) The method of claim 5, wherein establishing the subsequent ALD conditions comprises establishing at least one subsequent flow rate for the second reactant different from the first flow rate for the second reactant.

26. (New) The method of claim 1, wherein establishing the first ALD conditions comprises establishing a first purge gas flow rate.

27. (New) The method of claim 26, wherein establishing the subsequent ALD conditions comprises establishing at least one subsequent purge gas flow rate different from the first purge gas flow rate.

28. (New) The method of claim 1, wherein establishing the first ALD conditions comprises establishing a first reactor pressure.

29. (New) The method of claim 28, wherein establishing the subsequent ALD conditions comprises establishing at least one subsequent reactor pressure different from the first reactor pressure.

30. (New) The method of claim 1, wherein establishing the first ALD conditions comprises establishing a first number of cycles to run.

31. (New) The method of claim 30, wherein establishing the subsequent ALD conditions comprises establishing at least one subsequent number of cycles to run different from the first number of cycles to run.

32. (New) The method of claim 1, wherein growing the at least one subsequent monolayer of the film on the first monolayers using the subsequent ALD conditions comprises growing the at least one subsequent monolayer having second properties different from the first properties.

33. (New) A method, comprising:

establishing first atomic layer deposition (ALD) conditions for depositing a film on a substrate;

running a first set of cycles in a reactor having the substrate positioned therein using the first ALD conditions to grow at least one first monolayer of the film, the at least one first monolayer having first properties;

establishing subsequent ALD conditions for depositing the film; and

running a subsequent set of cycles in the reactor using the subsequent ALD conditions to grow at least one subsequent monolayer of the film, the at least one subsequent monolayer having subsequent properties different from the first properties.

34. (New) The method of claim 33, further comprising:

disposing a carrier gas in the reactor;

pulsing the reactor with a first reactant at a first flow rate;

purging the reactor of the first reactant using the carrier gas;

pulsing the reactor with a second reactant;

purging the reactor of the second reactant using the carrier gas; and

pulsing the reactor with the first reactant at second first flow rate different from the first reactant first flow rate.

35. (New) The method of claim 33, further comprising:

disposing a carrier gas in the reactor;

pulsing the reactor with a first reactant;

purging the reactor of the first reactant using the carrier gas;

pulsing the reactor with a second reactant at a first flow rate;

purging the reactor of the second reactant using the carrier gas;

pulsing the reactor with the first reactant;

purging the reactor of the first reactant using the carrier gas; and

pulsing the reactor with the second reactant at second first flow rate different from the second reactant first flow rate.

36. (New) The method of claim 33, further comprising:

establishing a first temperature for the reactor;

disposing a carrier gas in the reactor;
pulsing the reactor with a first reactant;
purging the reactor of the first reactant using the carrier gas;
pulsing the reactor with a second reactant;
purging the reactor of the second reactant using the carrier gas; and
establishing a second temperature for the reactor different from the first temperature.

37. (New) The method of claim 36, further comprising:

pulsing the reactor with the first reactant;
purging the reactor of the first reactant using the carrier gas; and
pulsing the reactor with the second reactant.

38. (New) The method of claim 33, further comprising:

establishing a first pressure for the reactor;
disposing a carrier gas in the reactor;
pulsing the reactor with a first reactant;
purging the reactor of the first reactant using the carrier gas;
pulsing the reactor with a second reactant;
purging the reactor of the second reactant using the carrier gas; and
establishing a second pressure for the reactor different from the first temperature.